This site was used as early as 10,000 years ago ...

Digging Deep in Quartzite Valley

BY *Patricia Morale*
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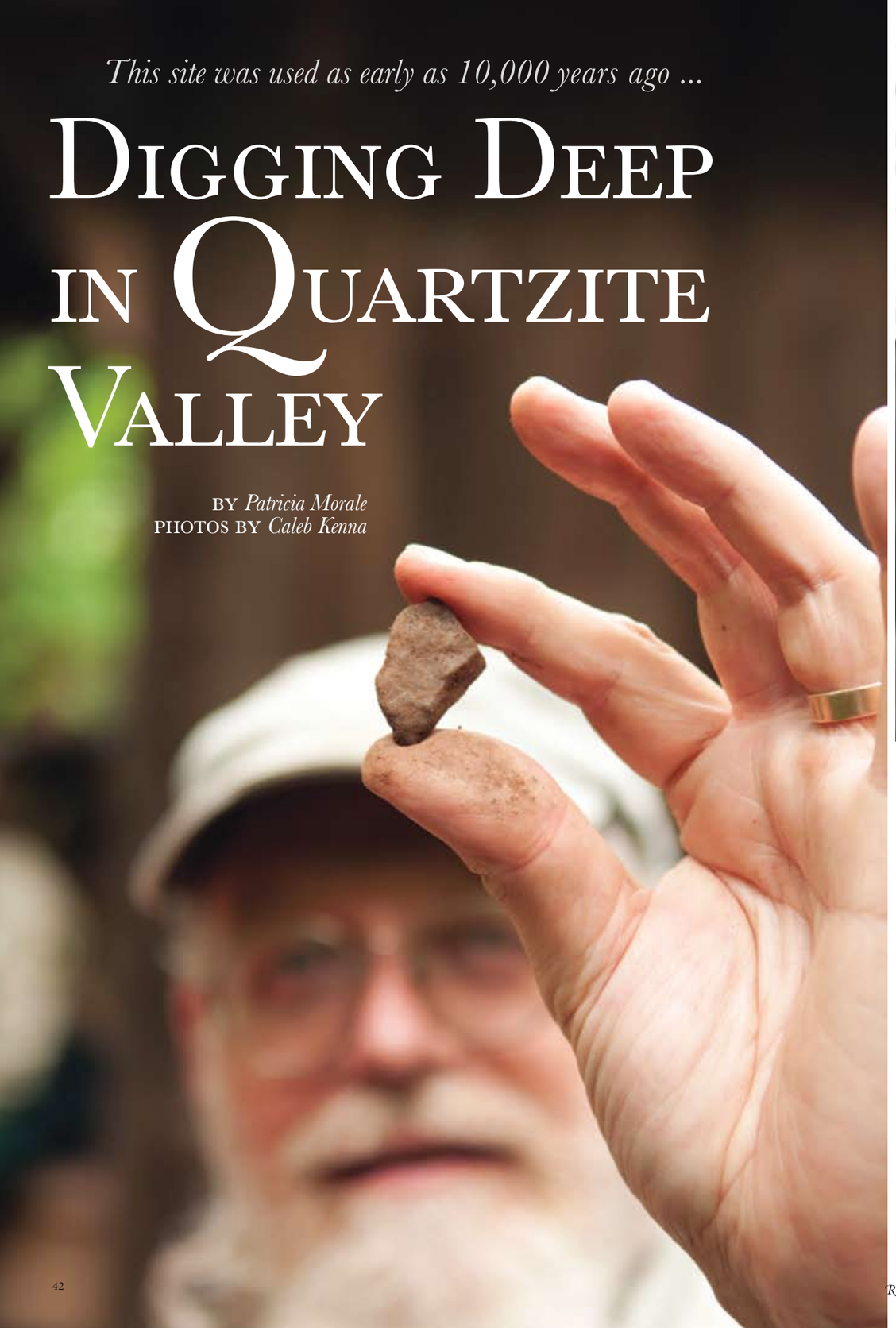

Many a hiker has daydreamed that at some point on a trek he or she will stumble upon some artifact of history — like an arrowhead or ancient relic — that connects to the past. Green Mountain National Forest Service Archaeologist David Lacy had such luck 25 years ago, on a grand scale. Lacy stumbled upon not just one artifact, but an entire site that served as a regional source for quartzite — the stuff of arrowhead-making. "We were en route to a remote location in the Green Mountain National Forest to conduct tests when we were surprised to see a spread of newly exposed quartzite flakes shining in the morning light for nearly 25 meters along the trail in front of us," Lacy said. "It didn't take long to verify these were 'bifacial thinning flakes,' with indications of much more material surrounding us, and that we were into something much bigger than we ever suspected we'd find. We were pleasantly stunned."

Fast forward to the present, and Lacy and a team of archaeologists and volunteers have been excavating the prehistoric site over the last three summers in a partnership that showcases the best efforts of the Green Mountain National Forest Service (GMNFS) and its partners. In a collaboration between the GMNFS, the University of Vermont Anthropology Department and its Consulting Archaeology Program (UVMCAP), the

Vermont Archaeological Society (VAS), and the Green Mountain Club (GMC), organized "digs" took place over four weeks in each of the last three summers, yielding tens of thousands of artifacts now stored at UVM. These artifacts indicate the site "clearly pre-dates written history," Lacy said, "Which is far older and used much earlier than we first thought." They now know the site was in use some 10,000 years ago as a quarry for raw material for tool-making by early Native Americans.

The site sits roughly along the Appalachian and Long Trails between Rutland and Manchester. Geographically, this area served as a strategic crossroads, or cultural nexus, among these historical people, given how it sits relative to headwaters of three major watersheds. Native Americans used waterways as their means of travel and commerce, and this area is close enough to the Battenkill leading to the Hudson River Watershed, an easy portage to West River accessing the Connecticut River Watershed, and near the Otter Creek accessing the Champlain Basin. So it is easy to envision how natives from New York, New Hampshire, Massachusetts and Vermont could travel to this site, one of the largest quartzite sources in New England.

The impetus for the recent excavations stemmed from the need relocate two overnight trail shelters. To remove and replace the structures, an evaluation by the Forest Service was needed. Lacy's job at the Forest Service includes historical preservation and protection, thus the groups worked together to ensure the shelter was appropriately placed, while protecting the archaeological site.

In the intervening years between Lacy's 1986 discovery of the site and the 2009, 2010, and 2011 digs, Lacy conducted tests and surveys to determine the extent of the site — more than a kilometer long and up to 500 meters wide — and implemented efforts to preserve and protect it. Lacy then pulled together UVM Consulting Archaeologist Geoff Mandel, VAS and the GMC, along with

numerous volunteers, to facilitate the current project.

The Vermont Archeological Society, founded in 1968, is an organization of both archaeologists and the interested public. VAS serves to raise awareness of Vermont's past while protecting its valuable cultural resources, and is a forum for information, a connection to archaeological opportunities, and a vehicle to educate the public about Vermont's cultural heritage. VAS publishes annually *The Journal of Vermont Archaeology*.

Bob Brinck is the president of VAS, and has been in the group for about five years. "For me, archaeology is a passion," Brinck said. "I have learned so much from both Dave (Lacy) and Geoff (Mandel); they are incredibly knowledgeable and talented, they're valuable resources in their fields." Brinck led one of the digging teams at the site, and explained the process. First, they develop a grid of the site, demarking spaces of one square meter, and then divide those into quadrants. Quadrants are then scraped at depths of ten centimeters, and all the material and dirt is shaken through screens; the pieces are examined for authenticity and then retained or discarded. Each piece is recorded as to its exact location, horizontally, vertically and including its depth. Brinck was amazed during one stint where they "recovered 1,473 pieces from just one square half-meter," he said.

During the winter months, Brinck spent many hours with Mandel up at UVM among the artifacts and assisted in washing, separating, analyzing and cataloguing the thousands of recovered pieces. Brinck feels fortunate to be involved in the project from start to finish, from the dig to the analysis, and said, "I find this fascinating, to see how the early natives lived and survived."

Besides the refining chips of quartzite, other items were recovered at the site, including tools, scrapers and spokeshaves. The most exciting find of the 2010 dig, however, was discovered on the final day of the season. The team of archaeologists pulled from the dirt only one "bifurcated" end of an arrowhead. This exciting piece revealed, to their astonishment, that this site was used as long ago as 7,000 B.C., or 9,000 years ago, in the Early Archaic Period. It also told the team that many peoples traveled to the site to obtain the raw material for tool-making, because the bifurcated piece was made of a foreign material — quartz — indicating it was left by a visitor to the site. The style of projectile points and the shapes of the bases of arrowheads tell archaeologists about the time period and location of origin, because these evolved over time and were unique to the various groups of native peoples.

UVM's Consulting Archaeologist Program, established in 1978, helps preserve, protect and explain Vermont's cultural heritage. It is a division of UVM's Anthropology Department, and, among other things, investigates important research topics related to Native American culture history. Mandel supervises the archaeology lab at UVM, records and preserves artifacts, and provides storage capacity. Mandel co-directed this excavation with Lacy and was the lucky one who had the "big find" of the first bifurcated piece that helped begin to date the site.

Mandel explained the significance of the quarry site, saying "generation upon generation, over time, people came to this place and 'got rocks.'" Also in the second summer of the dig, they found the "mother lode," according to Mandel, an enormous amount of artifacts in the form of chips and flakes of quartzite directly at the proposed shelter site. The artifacts formed an arc around a flat rock "bench" that the team determined served as a workspace where a worker would hone down a piece of quartzite into a usable form. The artifacts recovered from this spot amounted to between 40,000 to 50,000 pieces, mostly of discarded chips from striking the stone in the refining process.

Lacy explained that the pieces of artifacts were derived from a five-step refining process that involved "obtaining the spall, or cobble; edging, primary thinning, secondary thinning, and shaping." The evidence reveals that workers would perform the early stages on site; how-

ever, they would then take away many "blanks" that served multiple purposes. Some blanks were used as gifts, Lacy said, and some were used for trading to other peoples for other goods, and some pieces were kept and refined into final use by its owner. "Ultimately, the objective for the piece was to thin it until it was sharp and aerodynamic," Lacy said.

The significance of this quarry site as a resource to Vermont's prehistoric natives — the ancestors of the Abenaki and Mohican — was immense. This quartzite deposit would have appeared like a cliff and been visible to many during the early post-glacial period, Lacy explained, because the landscape would have been more barren. Its visibility made it an important and accessible resource — one of the highest quality quartzite formations in New England — as well as a geographical marker.

At the end of the third summer of excavations last year, in 2011, the team had another stroke of luck with an important find. Lacy said, "We thought that the Early Archaic date was astounding and didn't think we could top that, but Sarah Skinner, a loyal volunteer and sophomore archaeology major at SUNY Potsdam, uncovered a Late Paleo-Indian projectile point which dates to around 10,000 years ago!" Lacy's excitement was palpable when he added, "The person who dropped it must have been practically able to hear the glaciers melting in the distance! It's an almost unbelievable find."

Lacy spearheaded the initiative pulled together the professionals to execute the digs and coordinated volunteers who assisted with the work. Various groups came to the site and sifted dirt, including East Valley Academy in Randolph students, CCV students, VAS members, other student groups, interested people and even some hikers! The Vermont Youth Conservation Corps performed a significant amount of excavation work. The entire project was a symbiotic partnership for all the groups involved, as it provided exciting outdoor educational and work opportunities for youth, significant research material and data, and a new trail shelter for hikers. Anyone interested in future digs is encouraged to contact the Vermont Archaeological Society.

Rutland County is fortunate in its abundance of and access to many natural resources, including stone, and the reason why it is nicknamed the "Marble Valley" and home to the "Slate Valley." But ten millennia ago, long before marble or slate were used, the deep green, pine-covered, unblemished mountain slopes we see now were exposed stone outcroppings and a hub of industrial activity. The region then might have been known to indigenous people as the "Quartzite Valley."

Patricia Morale has been writing since her days as an editor at her high school newspaper. She lives in Pittsford and freelances for regional monthly publications, mostly in business and Vermont-related subjects. She has her degree in Journalism from the University of Colorado at Boulder.